

BATTALOVA, Sh.; LIKEROVA, A.A.; SOKOL'SKIY, D.V.

Bleaching properties of clays of Monrak deposits. Trudy Inst.
khim.nauk AN Kazakh.SSR 7:93-96 '61. (MIRA 15:8)
(Clay) (Bleaching materials)

SOKOL'SKIY, D.V.

Electrochemical methods for studying powdered metals and metal carriers. Trudy Inst.khim.nauk AN Kazakh.SSR 7:100-145 '61.
(MIRA 15:8)

(Metals) (Catalysts) (Electrochemistry)

S/079/61/031/003/003/013
B118/B207

AUTHORS: Shmonina, V. P., Temnikova, G. P., and Sokol'skiy, D. V.

TITLE: Catalytic reduction of aromatic nitro compounds. X. Effect of phenol hydroxyl upon the reduction kinetics of the nitro group in nitrobenzene derivatives

PERIODICAL: Zhurnal obshchey khimii, v. 31, no. 3, 1961, 743-749

TEXT: The present paper describes the effect exerted by the presence and position of phenol hydroxyl upon the reduction kinetics of the nitro group in isomeric nitrophenols in the presence of a nickel or platinum catalyst, i. e., in neutral or alkaline-aqueous alcoholic media. The phenol hydroxyl and ONa groups that were introduced into the nitro-compound molecule reduce its adsorption on both catalysts more intensively in ortho-position than in para-position where the reduction is greater than in meta-position. When the reaction is carried out on the skeleton nickel catalyst in an alkaline medium, the ONa group in the molecule of the nitro compound accelerates the reduction. Thus, the compounds studied may, with respect to the increase of reaction rate, be classified as follows: nitrobenzene, m-nitrophenolate,

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S/079/61/031/003/003/013
B118/B207



Catalytic reduction ...

p-nitrophenolate, o-nitrophenolate. On the platinum catalyst, however, the ONa group retards the reduction of the nitro compound, and the order of compounds is inverse with respect to the increase of reaction rate. In a neutral medium, the bond between hydrogen and platinum is less stable so that the position of phenol hydroxyl in the molecule exerts no essential influence upon the reaction rate. There are 6 figures, 4 tables, and 8 Soviet-bloc references.

ASSOCIATION: Kazakhskiy gosudarstvennyy universitet (Kazakh State University)

SUBMITTED: January 28, 1960

Card 2/2

S/079/61/031/003/004/013
B118/B207

AUTHORS: Shmonina, V. P., Detinenko, A. I., and Sokol'skiy, D. V.

TITLE: Catalytic reduction of aromatic nitro compounds. XI. Effect of the carboxyl group upon the reduction kinetics of nitro-benzene derivatives

PERIODICAL: Zhurnal obshchey khimii, v. 31, no. 3, 1961, 749-754

TEXT: The authors studied the effect of the presence and position of the carboxyl group the catalytic reduction of the nitro group in isomeric nitrobenzoic acids on skeleton nickel and platinum catalysts in neutral and aqueous-alkaline, alcoholic media. Although the introduction of the carboxyl group into the molecule reduces its reactivity, the effect of the carboxyl group in a heterogeneously catalytic conversion is not limited thereto. The course of reaction in heterogeneous catalysis is in close relation to the adsorption of the reacting products on the catalyst; the influence of the substituent is therefore closely linked with a change of the qualitative ratio of the reacting components on the catalyst surface which, under certain conditions, exerts an important effect upon the reaction rate. The influence

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Catalytic reduction ...

of the mutual position of the substituting groups upon the adsorption of nitrobenzoic acids was studied by N. F. Yermolenko and V. R. Skorokhod (Ref. 2: Uch. zap. Belorussk. gos. univ., no. 20, 165 (1954)) who found that the adsorption of o-nitrobenzoic acid from aqueous solutions on activated carbon is much lower than the adsorption of the respective m- and p-derivatives; this is explained by the fact that two polar groups are in the immediate neighborhood of o-nitrobenzoic acid, which entails a stronger solvation of the molecule in the polar solvent and a reduction of adsorption. The COOH and COONa groups which are introduced into the molecule of the nitro compound, reduce its reactivity and change its adsorbability. With respect to the increase of the adsorptive power on both catalysts, the compounds studied may be classified as follows: o-nitrobenzoic acid sodium <nitrobenzene - m-nitrobenzoic acid sodium <p-nitrobenzoic acid sodium. On the skeleton nickel catalyst, the effect of the carboxyl group is revealed chiefly by the change of the adsorption of the nitro compound; in this case, an inverse dependence was established: The rate of reduction decreases with an increase in adsorption. On the platinum catalyst, the effect of the carboxyl group manifests itself chiefly by a reduction of the reactivity of the molecule; the compounds studied may be classified as follows with respect to the reduction

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Catalytic reduction ...

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B11/B207

of the reaction rate: nitrobenzene > m-nitrobenzoic acid > o-nitrobenzoic acid = p-nitrobenzoic acid. To interpret the observed dependence of the rate of catalytic reaction on the mutual distribution of substituting groups, it is necessary to consider the effect of the substituent upon the reactivity and adsorption of the molecule. There are 6 figures, 2 tables, and 7 Soviet-bloc references.

ASSOCIATION: Kazakhskiy gosudarstvennyy universitet (Kazakh State University)

SUBMITTED: January 28, 1960

V

Card 3/3

SOKOL'SKIY, D.V., akademik; TRET'YAKOVA, G.F.

Hydrogenation of unsaturated compounds, while maintaining a constant concentration in the solution. Dokl. AN SSSR 138 no.2:399-401 My '61. (MIRA 14:5)

1. Kazakhskiy gosudarstvennyy universitet im. S.M. Kirova.
2. Akademiya nauk KazSSR (for Sokol'skiy).
(Unsaturated compounds) (Hydrogenation)

SOKOL'SKIY, D.V., akademik; TRET'YAKOVA, G.F.

Hydrogenation of unsaturated compounds in equilibrium on platinum group catalysts. Dokl. AN SSSR 140 no.4:844-846 O '61.
(MIRA 14:9)

1. AN Kazanskoy SSR (for Sokol'skiy).
(Unsaturated compounds) (Hydrogenation) (Platinum)

ZAKUMAYEVA, G.D. AND SOKOLSKIY, D.V.

"Hydrogen adsorption and catalytic activity of platinum, nickel and palladium in the presence of anions and cations."

Report submitted to the Intl. Committee for ~~the~~ Electrochemical thermodynamics and kinetics Rome, Italy 24-29 Sep 1962

BALANDIN, A.A., akademik, red.; KOBODEV, N.I., prof., red.; LEBEDEV,
V.P., dots., zam. red.; MAL'TSEV, A.N., zam. red.; AGROMOV,
A.Ye., dots., zam. red.; TOPCHIYEVA, K.V., prof., red.; YUR'YEV,
Yu.K., prof., red. PANCHENKOV, G.M., prof., red.; SOKOL'SKIY,
D.V., akademik, red.; VOL'KE-SHTEYN, F.F., prof., red.; LAZAREVA,
L.V., tekhn. red.

[Catalysis in the institutions of higher learning; papers of the
First Interuniversity Conference on Catalysis] Kataliz v vysshei
shkole; trudy. Moskva, Izd-vo Mosk. univ. No.1. Pt.2. 1962.
(MIRA 15:10)
325 p.

1. Mezhrayazovskoye soveshchaniye po katalizu. 1st, 1958. 2. Aka-
demiya nauk Kazakhskoy SSR (for Sokol'skiy). 3. Khimicheskiy fa-
kul'tet Moskovskogo gosudarstvennogo universiteta (for Yur'yev).
(Catalysis)

SCHOL'SKIY, Dmitriy Vladimirovich; GLAZYRINA, D.M., red.; ROROKINA,
Z.P., tekhn. red.

[Hydrogenation in solutions] Gidrirovanie v rastvorakh. Alma-
Ata, Izd-vo AN KazSSR, 1962. 484 p. (MIRA 15:10)
(Hydrogenation)

SAPOZHNIKOVA, E.A.; SOKOL'SKIY, D.V.; SULTANOV, A.S.

Recyclodehydration of tetrahyd:furfuryl alcohol to dihydropyran.
Khim. i fiz.-khim. prirod. i sint. polim. no.1:155-166 '62
(MIRA 18:1)

SOKOL'SKIY, D.V.; SHANINA, L.T.

Charging curves on platinum and palladium in the presence of
ethyl alcohol. Trudy Inst.khim.nauk AN Kazakh.SSR 8:37-40 '62.
(MIRA 15:12)

(Electrodes) (Hydrogen) (Ethyl alcohol)

SOKOL'SKIY, D.V.; KONOVALOV, A.M.

Effect of amines on the hydrogenation of benzaldehyde. Trudy
Inst.khim.nauk AN Kazakh.SSR 8:41-44 '62. (MIRA 15:12)
(Benzaldehyde) (Amines) (Hydrogenation)

DRUZ', V.A.; SOKOL'SKIY, D.V.; Prinimali uchastiye: CHULKHOVA, G.L.,
studentka-diplomnitsa; KABIYEV, T., student-diplomnik;
SAVICHE, Ye.I., laborant

Potentiometric study of the reactions underlying the catalytic
hydrogenation in the gas phase. Trudy Inst.khim.nauk AN
Kazakh.SSR 8:45-55 '64.
(Hydrogenation) (Catalysis)
(Potentiometric analysis)

(MIRA 15:12)

GREBENKINA, G.F.; SOKOL'SKIY, D.V.

Hydrogenation of unsaturated compounds at constant concentration.
Trudy Inst.khim.nauk AN Kazakh.SSR 8:81-89 '62. (MIRA 15:12)
(Unsaturated compounds) (Hydrogenation)

S/650/62/006/000/002/004
B119/B101

AUTHORS: Sokol'skiy, D. V., Noskova, N. F.

TITLE: Competitive hydrogenation of acetylene and phenyl acetylene

SOURCE: Akademiya nauk Kuzakhskoy SSR. Institut khimicheskikh nauk.
Trudy. v. 8. Alma-Ata, 1962. Kataliticheskiy sintez
monomerov. 90-99

TEXT: Hydrogenation tests of $C_2H_2 + C_6H_5C_2H$ mixtures were made using the catalysts: Pd/CaCO₃ (with 5% Pd), skeletal Ni, Pd:Pt (3:1), in 50% ethanol as well as in 0.1 N ethyl-alcoholic KOH, at 20 and 40°C. The two first-mentioned catalysts were used with admixtures of lead acetate as well as without these. The rate of flows of the mixture $C_2H_2 : H_2 = 1:2$ were 15 ml/min of the former and 30 ml/min of the latter. The tests showed that the hydrogenation of phenyl acetylene in the mixture proceeds faster than that of acetylene, irrespective of the catalyst. Acetylene and phenyl acetylene in the mixture can be hydrogenated up to 98-100%

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SOKOL'SKIY, D.V.; ZUYEVA, L.I.

Hydrogenation of cottonseed oil on palladium catalysts. Trudy
Inst.khim.nauk AN Kazakh.SSR-8:100-103 '62. (MIRA 15:12)
(Cottonseed oil) (Hydrogenation)

SOKOL'SKIY, D.V.; KOMBAROV, K.N.

Effect of solvents on hydrogen adsorption on the surface of a
platinated platinum electrode-catalyst. Trudy Inst.khim.nauk
AN Kazakh.SSR 8:104-108 '62. (MIRA 15:12)
(Hydrogen) (Electrodes, Platinum) (Solvents)

SOKOL'SKIY, D.V.; GOLODOV, F.G.; GOLODOVA, L.S.; YERZHANOV, A.I.;
POD"YECHEVA, Ye.L.; Prinimali uchastiye: KARSYBEKOV, M.A.,
dotsent; SDOBNOV, Ye., diplomnik; ANTONOV, N., diplomnik

Hydrogenation of cottonseed oil in solvents in a laboratory
column-type flow system with a fixed-bed catalyst. Trudy
Inst.khim.nauk AN Kazakh.SSR 8:128-136 '62. (MIRA 15:12)
(Cottonseed oil) (Hydrogenation)

FASMAN, A.B.; GOLODOV, V.A.; SOKOL'SKIY, D.V.

Catalytic reduction of quinones by carbon monoxide in the liquid
phase. Trudy Inst.khim.nauk AN Kazakh.SSR 8:137-149 '62.
(MIRA 15:12)

(Quinone) (Carbon monoxide)

SOKOL'SKIY, D.V.; NURGOZHAYEVA, Sh.Kh.

Decrease of mercury losses in the liquid phase hydration of
acetylene. Trudy Inst.khim.nauk AN Kazakh.SSR 8:163-165 '62.
(MIRA 15:12)

(Acetylene) (Hydration) (Mercury)

SOKOL'SKIY, D.V., akademik; FASMAN, A.B., kand. khimicheskikh nauk;
BYKOV, A.V.

Measuring the potential of a suspended powdered catalyst.
Vest. AN Kazakh. SSR 18 no.10:45-54 O '62. (MIRA 17:9)
1. Akademiya nauk Kazakhskoy SSR (for Sokol'skiy).

FASMAN, A.B.; SOKOL'SKIY, D.V., akademik; BYKOV, A.V.; SHCHUROV, K.A.
NURUSHEV, A.

Potentiometric study of catalytic hydrogenation in dielectric
media. Dokl. AN SSSR 142 no.4:874-877 F '62. (MIRA 15:2)

1. Kazakhskiy gosudarstvennyy universitet im. S.M.Kirova.
2. AN KazSSR (for Sokol'skiy).
(Hydrogenation)
(Catalysts)
(Electrochemistry)

SOKOL'SKIY, D.V., akademik; BELOSLYUDOVA, T.M.

Behavior of vinyl butyl ether on a platinum catalyst. Dokl.
AN SSSR 145 no.4:834-836 Ag '62. (MIRA 15:7)

1. Kazakhskiy gosudarstvennyy universitet im. S.M.Kirova.
2. AN KazSSR (for Sokol'skiy).
(Ethers)

SOKOL'SKIY, D.V., akademik; NOSKOVA, N.F.

Charge curves of skeletal nickel, Pd/C_{ACO}₃, and platinum black
in anode polarization by acetylene. Dokl.AN SSSR 145 no.5:
1095-1097 '62. (MIRA 15:8)

1. Institut khimicheskikh nauk AN KazSSR. 2. AN KazSSR (for
Sokol'skiy).
(Polarization (Electricity)) (Catalysts) (Acetylene)

SOKOL'SKIY, D.V., akademik, glav. red.; POPOVA, N.M., kand. khim. nauk, red.; ZAKUMBAYEVA, G.D., kand. khim. nauk, red.; BULAVKINA, L.A., kand. khim. nauk, red.; GREBENKINA, G.F., kand. khim. nauk, red.; DZHARDAMALIYEVA, K.K., kand. khim. nauk, red.; GLAZYRINA, D.M., red.; ROROKINA, Z.P., tekhn.red.

[Catalytic reactions in the liquid phase] Kataliticheskie reaktsii v zhidkoi faze; trudy Vsesoiuznoi konferentsii. Alma-Ata, Izd-vo AN Kaz.SSR, 1963. 459 p. (MIRA 16:12)

1. Vsesoyuznaya konferentsiya po kataliticheskim reaktsiyam v zhidkoy faze, Alma-Ata, 1962. 2. Kazakhskiy tekhnologicheskiy institut i Institut khimicheskikh nauk AN KazSSR (for Sokol'skiy).

(Catalysis)

SOKOL'SKIY, D.V.; VOLKOVA, L.D.

Hydrogenation of mesityl oxide in mixed solvents. Izv. AN Kazakh SSR.
Ser. tekhnicheskikh nauk no. 183-7 '63. (MIRA 17:3)

TABER, A.M.; BALANDIN, A.A. akademik; SOKOL'SKIY, D.V., akademik;
POLKOVNIKOV, B.D.

Charging curves of the boride catalysts of Pt-group metals.
Dokl. AN SSSR 152 no.2:379-381 S '63. (MIRA 16:11)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
2. AN KazSSR (for Sokol'skiy)

FASMAN, A.B.; SOKOL'SKIY, D.V.; BYKOV, A.V.; SHCHUROV, K.A.; KHARLOV, A.P.

Automation of the laboratory studies of heterogeneous catalysis.
Izv. vys. ucheb. zav.; khim. i khim. tekhn. 6 no.3:511-516 '63.
(MIRA 16:8)

1. Kazakhskiy gosudarstvennyy universitet imeni Kiroga,
kafedra kataliza i tekhnicheskij khimii.

(Catalysis)
(Laboratories—Equipment and supplies)
(Automatic control)

L 12371-63EPR/EWP(j)/EPF(c)/EWT(m)/EDS Ps-4/Pc-4/Pr-4 RM/WW/JW
S/081/63/000/005/003/075

169

AUTHOR: Bizhanov, F. and Sokol'skiy, D. V.

TITLE: Hydrogenation of adipic dinitrile on skeletal cobalt catalyst

PERIODICAL: Referativnyy zhurnal, Khimiya, no. 5, 1963, 67, abstract 5B487
(KazSSR Relym, Akad. khabarlary, Izv. AN KazSSR, Ser. Khim, 1962, no.
1, 72-74)

TEXT: The hydrogenation of adiponitrile was investigated in CH₃OH by addition of NH₃, quinoline, NaOH in the presence of Co skeletal catalyst. It is possible to obtain hexamethylenediamine with a 95-97% yield by catalytic hydrogenation of adiponitrile. Authors' abstract.

Abstractor's note: Complete translation

Card 1/1

FASMAN, A.B.; SOKOL'SKIY, D.V.

Kinetics and the mechanism of catalytic hydrogenation in the liquid phase. Part 2: Some regularities in the hydrogenation of unsaturated hydrocarbons on a skeletal nickel catalyst. Kin.i kat. 4 no.5: 736-745 S-0 '63. (MIRA 16:12)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova.

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CIA-RDP86-00513R001652130008-5

R. T. P. - 1963, p. 1-3, 10; 1963, p. 1-3, 10.

Properties and bleaching properties of the bentonites of
Fergana. Vestn. AN Fergan., 1963, No. 5 (1963).
(1M. 1963)

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001652130008-5"

SOKOL'SKIY, D.V., akademik; AZERBAYEV, I.N.; KIRILYUS, I.V.

Studying nickel catalysts by the magnetic induction method.
Vest. AN Kazakh. SSR 19 no.11:40-47 N'63. (MIRA 17:5)

1. Akademiya nauk Kazakhskoy SSR (for Sokol'skiy). 2. Chlen-korrespondent AN Kazakhskoy SSR (for Azerbayev).

Соколов, С.А., Быстров, В.Г.

Preparation of a Raney nickel catalyst by pyridine and mercury
in the hydrogenation of dimethylacetylenylcarbinol. Vest.
N KazSSR, N.S.R. 19 no.12:65-69 D '65. (MIRA 17:12)

I. Akademya nauk KazSSR (for Sokol'skiy).

FASMAN, A.B.; GETMANTSEVA, I.P.; SOKOL'SKIY, D.V.

Measurement of the gradient of hydrogen concentration in
hydrogenation of solutions. Zhur. fiz. khim. 37 no.9:2100-
2105 S '63. (MIRA 16:12)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova.

SOKOL'SKIY, D.V., akademik; ZAKARINA, N.A.; AZKUMBAYEVA, G.D.

Effect of cadmium ions on the adsorption of hydrogen on a palladium-coated platinum electride. Dokl. AN SSSR 148 no.3:630-632 Ja '63.
(MIRA 16:2)

1. Institut khimicheskikh nauk AN KazSSR. 2. AN KazSSR (for Sokol'skiy).

(Cadmium salts) (Hydrogen) (Adsorption)
(Electrodes, Platinum)

BEZVERKHOVA, S.T.; LUK'YANOV, A.T.; SOKOL'SKIY, D.V., akademik

Potentiometric measurements in various media. Dokl.AN SSSR
(MIRA 16:4)
148 no.4:881-883 F '63.

1. Kazakhskiy gosudarstvennyy universitet im. S.M.Korova.
2. AN KazSSR (for Sokol'skiy).
(Conductometric analysis)

FASMAN, A.B.; PODYUKOVA, G.L.; SOKOL'SKIY, D.V., akademik

Mechanism of carbon monoxide adsorption and conversion in the
liquid phase. Dokl. AN SSSR 150 no.4:856-858 Je '63.
(MIRA 16:6)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova.
2. Akademiya nauk Kazakhskoy SSR (for Sokol'skiy).
(Carbon monoxide) (Adsorption)

SOKOL'SKAYA, A.M.; RYABININA, S.A.; SOKOL'SKIY, D.V., akademik

Hydrogenation on Pt and Pd during the feeding of the unsaturated
compound at a uniform rate. Dokl. AN SSSR 152 no.5:1126-1129
O '63. (MIRA 16:12)

1. Kazakhskiy gosudarstvennyy universitet im. S.M.Kirova.
2. AN KazSSR (for Sokol'skiy).

SOKOL'SKAYA, A.M.; RESHETNIKOV, S.M.; SOKOL'SKIY, D.V., akademik

Hydrogenation of unsaturated compounds in buffer solutions.
Dokl. AN SSSR 152 no.6:1369-1372 O '63. (MIRA 16:11)

1. Kazakhskiy gosudarstvennyy universitet im. S.M. Kirova.
2. AN KazSSR (for Sokol'skiy).

ZAKARINA, N.A.; ZAKUMBAYEVA, G.D.; SOKOL'SKIY, D.V., akademik

Effect of zinc ions on the sorption of hydrogen and the
catalytic activity of palladium. Dokl. AN SSSR 153 no.1:
133-135 N '63. (MIRA 17:1)

1. Institut khimicheskikh nauk AN KazSSR. 2. AN KazSSR
(for Sokol'skiy).

FASMAN, A.B.; SOKOL'SKIY, D.V., akademik; SHUROV, K.A.

Polarization characteristics of circulatory powder electrodes.
Dokl. AN SSSR 153 no.3:653-656 N '63. (MIRA 17:1)

1. Abkhazskiy gosudarstvennyy universitet im. S.M. Kirova.
2. AN KazSSR (for Sokol'skiy).

SOKOL'SKIY, D.V.; SHMONINA, V.P.; TANEYEVA, G.V.

Polarographic determination of acetic and crotonic aldehydes
in a mixture. Zav. lab. 30 no.7:793-794 '64. (MIRA 18:3)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova.

SOKOL'SKIY, D. V.

"Nizkotemperaturnaya gidrogenizatsiya zhirov v rastvoritelyakh."

report submitted for 35th Intl Cong, Industrial Chemistry, Warsaw, 15-19
Sep 64.

Alma-Ata, Kazakh SSR.

SHCHEGOLEV, N.I.; SOKOL'SKIY, D.V.

Effect of certain factors on the rate and completeness of hydro-
genation of aromatic nitriles. Trudy Inst. khim. nauk AN Kazakh.
(MIRA 17:11)
SSR 11:48-55 '64.

SOKOL'SKIY, D.V.; DRUZ', V.A.; ALEKSEYEV, G.K.; SHUMATEVA, N.F.;
MUSINA, S.A.

Use of oxide catalysts on carriers for the purification of
exhaust gases by removing carbon monoxide and hydrocarbons.

Trudy Inst.khim.nauk AN Kazakh. SSR 13:174-201 '65. (MIRA 18:9)

FASMAN, A.B.; DOREMAN, Ya.A.; SOKOL'SKIY D.V.

Kinetics and the mechanism of liquid-phase catalytic hydrogenation.
Part 3: Macrokinetics of reduction over a colloidal palladium cata-
lyst. Kin. i kat. 5 no.4:716-723 J1-Ag '64.
(MIRA 17:11)
J. Kazakhskiy gosudarstvennyy universitet imeni Kirova.

KIM, Z.V.; BYKOV, A.V.; YERZHANOVA, M.S.; SOKOL'SKIY, D.V.

Reactor for liquid-phase catalytic reactions in thin layers.

Kin. i kat. 6 no.1:176-177 Ja-F '65.

(MIRA 18:6)

I. Kazakhskiy tekhnologicheskiy institut.

GOLODOV, V.A.; FASMAN, A.B.; SOKOL'SKIY, D.V.

Effect of halide ions on the kinetics of the homogeneous catalytic reduction of p-benzoquinone with carbon monoxide. Zhur. VKHO 9 no.3:351-352 '64.
(MIRA 17:9)

GOL'DOV, V.A.; KUTYUKOV, G.G.; FASHAN, A.B.; SOKOL'SKIY, D.V.

Reaction of H_2PdCl_4 with carbon monoxide in aqueous solutions.

Zhur. neorg. khim. 9 no.10:2319-2324 O '64.

(MIRA 17:12)

1. Kazakhskiy gosudarstvennyy universitet im. S.M. Kirova.

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CIA-RDP86-00513R001652130008-5

POROVA, N.M., ARKHANGEL'SK, U.S.S.R., TOLSTIKOVA, I.F.

Hydrogen sorption in nickel catalysts. Izv. AN Kazakh. SSR.
Ser. khim. nauk 14 no.1;60-68 Ja-Mr '64. (MIRA 18:3)

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001652130008-5"

SOKOLOVSKII, D.V.; VOLKOVA, I.D.

Hydrogenation of acrylonitrile in mixed solvents on a Ni-skeletal catalyst. Izv. AN Kazakh. SSR. Ser. khim. nauk 14 no.1:69-74 Ja-Mr '64. (MIRA 18:3)

SOKOLOVSKIY, D.V., akademik; EVA VAIKINA, L.A., kand. khim. nauk

Preparing catalysts for controlled cracking from the bentonites
of Kazakhstan. Vest. AN Kazakh. SSR 20 no.12:3-14 D 164
(MIRA 18:2)

1. AN KazSSR (for Sokol'skiy).

SOKOL'SKIY, D.V.; MATVEYCHUK, A.Ya.

Electric conductivity of Raney nickel activated by metal admixtures.
Vest. AN Kazakh. SSR 21 no.1:35-38 Ja '65.

(MIRA 18:7)

SOKOL'SKIY, D.V., akademik

Electrochemical methods of studying the mechanism of catalytic hydrogenation in solutions. Vest. AN Kazakh. SSR 21 no.6:3-21 Je '65. (MIRA 18:7)

l. Akademiya nauk Kazakhskoy SSR.

FAKHOVSKY, V. S.; KAL'YANOV, I. V.; MALKOVSKIY, V. V. (Khar'kov)

On kinetics of the homogeneous catalytic reduction of p-benzoquinone by carbon monoxide in solutions. Izv. Akad. Nauk SSSR, Ser. Khim., No. 6, 1357-1360, 1973.

I. Institute of Inorganic Chemistry, University of Irkutsk, Irkutsk.

FASMAN, A. B.; GOLODOV, V. A.; SOKOL'SKIY, D. V., akademik

Kinetics and mechanism of the catalytic reduction of quinones
by carbon monoxide in solutions. Dokl. AN SSSR 155 no. 2:
434-437 Mr '64. (MIRA 17:5)

1. Kazakhskiy gosudarstvennyy universitet im. S. M. Kirova.
2. AN Kazakhskoy SSSR (for Sokol'skiy).

ACCESSION NR: AP4041403

S/0020/64/156/006/1386/1388

AUTHOR: Zakumbayeva, G. D.; Noskova, N. F.; Konayev, E. N. Sokol'skiy, D. V. (Academician AN KazSSSR)

TITLE: Liquid phase oxidation of carbon monoxide

SOURCE: AN SSSR. Doklady*, v. 156, no. 6, 1964, 1386-1388

TOPIC TAGS: carbon monoxide, liquid phase oxidation, palladous chloride catalyst, cupric chloride catalyst, bromide ion, iodide catalyst, acetate ion, catalyst activity, catalyst regeneration, catalyst life

ABSTRACT: The liquid phase oxidation of low concentrations (0.3-2%) of carbon monoxide in a circulating system at 20, 40 and 60°C was investigated. The CO-containing gas was bubbled at 150-300 liters/hour through the catalyst solution at the bottom of the reactor. At 20°C only 12% oxidation was attained using $PdCl_2$ or $CuCl_2$ in 0.02-0.1N HCl; this yield was lowered to 6% at 40°C. With the addition of bromide or iodide ion oxidation was increased to 20% and was independent of temperature. A maximum oxidation of 35% was attained with $[Pd^{2+}] : [Cu^{2+}] = 0.22$, $[Cl^-] : [Br^-] = 0.2$ and 0.02N HCl.

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ACCESSION NR: AP4041403

The formation of the active Pd complex $[PdCl_3Br]^{2-}$ or $[PdCl_2Br]^2-$ was assumed. The addition of acetate ion increased oxidation to 50% at 20C and 55% at 40C; it reduced catalyst activity at 60C. Changing the reaction medium from acid to weakly alkaline increased oxidation from 20 to 70%. Increasing the partial pressure of the CO increased oxidation. The catalyst could be used 5-6 hours without regeneration. Introduction of air into the system completely reduced catalyst activity in 1-2 hours. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 09Mar64

ENCL: 00

SUB CODE: GC, IE

NR REF SOV: 004

OTHER: 007

Card 2/2

FASMAN, A.B.; KUTIUKOV, G.G.; SOKOL'SKIY, D.V., akademik

Kinetics and the mechanism of K_2PdBr_4 reduction by carbon monoxide in aqueous solutions. Dokl. AN SSSR 158 no.5:1176-1179 O '64.
(MIRA 17:10)

1. Kazakhskiy gosudarstvennyy universitet im. S.M.Kirova, Alma-Ata.
2. AN KazSSR (for Sokol'skiy).

SOKOL'SKAYA, A.M.; RASHETEVSKOV, S.M.; SOKOL'SKIY, D.V., akademik

Effect of pH on hydrogen adsorption by platinized platinum.
Dokl. AN SSSR 199 no. 4907-90 P 164 (MIRA 18:1)

1. Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova.
2. AN KazSSR (for Sokol'skiy).

KABILYEV, T.; FASMAN, A.P.; MOLYUKOVA, N.I.; SOKOLOVSKIY, D.V., akademik

Promotion of a skeletal nickel catalyst by molybdenum. Dokl.
AN SSSR 159 no.5 1097-1090 D '64 (MIRA 1851)

1. Kazakhskiy gosudarstvennyy universitet im. S.M. Kirova.
2. AN KazSSR (for Sokolovskiy).

L 25157-65 EWT(m)/EWP(j)/EWP(t)/EWP(b) IJP(c) JD/JG/RM

ACCESSION NR: AP5001991

S/0020/64/159/006/1323/1325

18
17

AUTHOR: Zakumbayeva, G. D.; Noskova, N. F.; Sokol'skiy, D. V.; Konayev, E. N. (Academician AN KazSSR)

TITLE: Low temperature oxidation of carbon monoxide with aqueous solutions of palladium salts

SOURCE: AN SSSR. Doklady, v. 159, no. 6, 1964, 1323-1325

TOPIC TAGS: carbon monoxide oxidation, palladium containing catalyst, palladium copper iron catalyst, catalyst stability

ABSTRACT: Small amounts of CO (0.2-4%) can be essentially completely oxidized in one pass at low temperatures with aqueous solutions of a catalyst system containing Pd^{2+} - Cu^{2+} - Fe^{3+} . The oxidation proceeds via the formation and decomposition of the π complex $[PdX_3CO]^-$; the reduced Pd must be regenerated to Pd^{2+} . H_2O_2 , $CrCl_3$, $K_2Cr_2O_7$, Cu^{2+} and Fe^{3+} were investigated as oxidizing agents in the aqueous Pd salt solutions; the most stable and active system contained $[Pd^{2+}]/[Cu^{2+}] = 0.22$; $0.5-1$ g/l Fe^{3+} increased the activity, but 1.5-2.5

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L 25157-65

ACCESSION NR: AP5001991

g/l of Fe^{3+} retarded the CO oxidation process. Anion concentration also affected the process; optimum catalyst activity was attained with 3.5 g/l Cl^- , 20.6 g/l Br^- and 13-15 g/l CH_3COO^- . Increasing temperature from 20 to 40 C had little effect, and the gas feed rate had no effect on the catalyst activity. Complete reversibility of the $\text{Cu}^{2+} \rightleftharpoons \text{Cu}^+ + e$ redox system is necessary to maintain high catalytic activity. Several methods for possibly increasing catalyst stability were investigated. $\text{K}_2\text{Cr}_2\text{O}_7$ and CrCl_3 did not give desired results; high concentrations of oxidizing agents with high redox potentials (Fe^{3+}) interfered with reduction of the Pd complex. Catalyst stability was prolonged by the constant addition of 0.4% H_2O_2 , but after several hours the activity fell due to the dilution of the catalyst solution. The stability of the catalyst was increased by a new method of regeneration (Abstractor's note: the method was not described) so the process could be operated continuously as long as desired. Orig. art. has: 3 figures.

ASSOCIATION: Institut khimicheskikh nauk Akademii nauk KazSSR (Institute of Chemical Sciences, Academy of Sciences, KazSSR)

SUBMITTED: 17Aug64

ENCL: 00

SUB CODE: GC

NR REF SOV: 005

OTHER: 005

Card 2/2

L 53751-65 EWT(m)/EPF(c)/EPR/EWP(j)/T/EWA(c) PC-4/Pr-4/Ps-4 WW/RM

ACCESSION NR: AP5012828

UR/0360/65/000/001/0052/0057

AUTHOR: Yolkova, L. D.; Sokol'skiy, D. V.

28

TITLE: Hydrogenation of nitriles with conjugated bonds in mixed solvents

SOURCE: AN KazSSR. Izvestiya. Seriya khimicheskikh nauk, no. 1, 1965, 52-57

TOPIC TAGS: methacrylonitrile, acrylonitrile, hydrogenation, catalysis

ABSTRACT: The authors studied the hydrogenation of methacrylonitrile and acrylonitrile on Pd and Pt black, and of methacrylonitrile on Raney nickel in *n*-butyl alcohol, dimethylformamide, and mixtures of the two. Three to five portions of the compound studied were hydrogenated in succession on the same batch of catalyst. Kinetic and potentiometric curves show that the hydrogenation of methacrylonitrile in *n*-butyl alcohol proceeds at a gradually decreasing rate, and the reaction is first-order. In dimethylformamide, the reaction is considerably slower, and the reaction order changes. In mixtures, the rate of hydrogenation decreases with rising dimethylformamide content; this is thought to be caused by the polar properties of this solvent. The activation energy of the hydrogenation increases from *n*-butyl alcohol to dimethylformamide. On Pd black, both nitriles are converted to saturated

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L 53751-65

ACCESSION NR: AP5012828

nitriles via a zero-order reaction. The effect of dimethylformamide is the same as in the case of nickel. Platinum was the least selective hydrogenation catalyst for acrylonitrile and methacrylonitrile. Thus, the rate and selectivity of hydrogenation of unsaturated nitriles of the fatty acid series are appreciably affected by the catalyst, nature of the solvent used, and structure of the nitriles. Orig. art. has: 6 figures and 3 tables.

ASSOCIATION: none

SUBMITTED: 11Nov64

ENCL: 00

SUB CODE: GC, OC

NO REF SOV: 003

OTHER: 003

Y94
Card 2/2

POPOVA, N.M.; RODOL'SKII, D.V.

Nickel and mixed catalysts on carriers. Trudy Inst. khim. nauk
AN Kazakh. SSR 13:3-66 '65. (MIRA 18:9)

SOKOL'SKII, D.V.; POPOVA, N.M.; SYZDYKBAYEVA, N.B.

Platinum, palladium, and platinum-palladium catalysts on carriers
for carbon monoxide oxidation. Trudy Inst. khim. nauk AN Kazakh.
SSR 13:118-145 '65. (MIRA 18:9)

ZUYEVA, L.I.; SOKOL'SKIY, D.V.

Low temperature hydrogenation of vegetable oils on platinum
group catalysts on carbon. Trudy Inst. khim. nauk AN Kazakh.
SSR 13:146-164 '65. (MIRA 18:9)

СОВЕТСКАЯ СОЦИАЛИСТИЧЕСКАЯ РЕСПУБЛИКА, П.В.

Isomerization in the continuous hydrogenation of fats.
Trudy Inst. khim. nauk AN Kazakh. SSR 13:207-209 '65.
(MIRA 18:9)

SOKOLNIKOV, I.V.; PODOL'KOV, M.I.; PUICVA, N.N.

Use of *kales* bentonite clays in the hydrogenation of cotton-seed oil under operational plant conditions. Trudy Inst. khim. nauk AN Kazakh. SSR 13:210-218 '65. (MTRA 18:9)

SOKOL'SKIY, D.V.; TOYBAYEV, I.K.

Conductometric method of studying the liquid phase hydrogenation
catalysts. Elektrokhimiia 1 no.6:673-676 Je '65. (MIRA 18:7)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova.

FASIMOV, A. I., CHMEYEV, G. V., SOKOL'SKIY, D. V.

Measurement of the potential of powdered catalysts in dielectric media.
Part 1. Elektrokhimiia 1 no.8:900-905 Ag '65. (MIRA 18:9)

I. Kazakhskiy gosudarstvennyy universitet imeni S.M.Kirova.

BELOSLYUDOVA, T.M.; SOKOL'SKIY, D.V.

Behavior of ethylene and acetylene on a platinum catalyst in aqueous
solutions. Elektrokhimiia 1 no.10:1182-1186 O '65.

(MIRA 18:10)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova.

СЕРГЕЕВА, А.А.; ПОКРОВСКИЙ, Ю.М.

Microchemical methods of studying the mechanism of catalytic hydrogenation in solutions. Kin. i kat. 6 no.4:658-665 Ju-Ag '65. (MIRA 18:9)

1. Kazakhskiy gosudarstvennyy universitet imeni S.M.Kirova.

SOKOL'SKIY, D.V.; YERZHANOVA, M.S.

All-Union Conference on Catalysts for the Hydrogenation of
Fats, Sugars, and Furfurale. Kin. i kat. 6 no.4:767-768 Jl.
Ag '65. (MIRA 1839)

GOLODOV, V. I.; MARKOV, V. P.; FARFAN, A. B.; SOKOLOVSKAY, D. V.

Effect of the partial pressure of carbon monoxide on the
kinetics of the catalytic reduction of some compounds in
solutions. Izv. vys. ucheb. zan., khim. i khim. tekhnika, 8 no. 4: 590-
601 (1965).

I. Fazekhskiy gosudarstvennyy universitet imeni Kirova,
kafedra kataliza i tekhnicheskoy khimii.

PAKSHI, A.B.; KHILMOV, G.G.; TOLSTOY, D.V.

Reactivity of palladium complex compounds $Pd^{(II)}$ in aqueous
solutions. Zhur. neorg. khim. 19 no.6:1338-1343 Je '65.
(MIRA 18:6)
i.e. Kazakhskiy gosudarstvennyy universitet imeni Kirova.

POPOVA, N.N.; VASIL'YEV, D.V.; BUDENKOVA, L.V.; MAMESHEV, R.

Oxygenation of cottonseed oil on nickel-kieselguhr and nickel-platinum catalysts over coal in absolute ethyl alcohol. Izv. AN SSSR, Ser. khim. nauk 15 no.2:59-64 Ap-Je '65 (MIRA 18:9)

SAMSONOV, N.S.; SOKOLOV, A.V.

Hydrogenation of mineral oil on a skeletal nickel with vanadium additives. Izv. Akad. Nauk. Kazakh SSR. Ser. Khim. Nauk 15 no. 2:65-72 Ag-Je '65.
(MIRA 18:9)

BIZHANOV, F.; VOL'KIN, D.V.

Adsorption of hydrogen on a skeletal cobalt. Izv. AN Kazakh. SSR.
Ser. khim. nauk 15 no.2:73-76 Ap-Je '65. (MIRA 18:9)

RABOTNIKOV, V.H.; SOKOLSKAYA, T.M.; KOMILSEYEV, D.V.

Relation between values of the preexponential factor and
catalyst potential shift in the hydrogenation reaction.
Izv. AN Kazakh SSR Ser. khim. nauk 15 no.3:62-66 Jl-Ag '65.
(MIRA 18:11)

2. Submitted January 18, 1965.

ZHUMARBAYEV, U.T.; SOKOL'SKIY, D.V.; KURTSEITOVA, G.I.

Nickel-chromium catalysts on carbon for furfural hydrogenation.
Izv. AN Kazakh.SSR.Ser.Khim.nauk 15 no.3:71-77 Jl-As '65.
(MIRA 18:11)

1. Submitted June 11, 1964.

PAK, A.M.; SOKOL'SKIY, D.V.

Effect of molybdenum and rhodium additions on the activity
of Raney nickel. Izv. AN Kazakh.SSR.Ser.khim.nauk 15
no.3:78-83 Jl-Ag '65. (MIRA 18:11)

1. Submitted February 9, 1965.

SOKOL'SKIY, D.V., akademik; BEYSEKOV, K.Z.

Hydrogenation of cinnamaldehyde on a nickel catalyst in
the presence of pyridine and mercury. Vest. AN Kazakh.
SSR 21 no.4:71-73 Ap '65. (MIRA 18:5)

1. Akademiya nauk Kazakhskoy SSR (for Sokol'skiy).

1. Kavalkovskij, M. I. - 1930-1931, 1933.

Metallurgicheskaja i neorganicheskaja kimija v srednijem periode
karbon monoxida. Chelyabinsk. 1930. 36 s. No. 4: MGU-101. Ap 103
(yep. 12)

2. Kavalkovskij, M. I. - 1930-1931, 1933.

DRUZ', V.A.; SOKOL'SKIY, D.V.

Possible mechanism underlying the effect of cathodic addition agents in the passivation of metals. Zhur. fiz. khim. 38 no.5; 1384 My '64. (MIRA 15:12)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova.
Submitted June 10, 1963.

AVENASHKIN, G.D.; BURAKOV, N.A.; SOKOLOVY, V.V., akademik

Effect of cobalt and nickel salts on the sorptive and catalytic properties of pyrolytic black. Dokl. Akad. Nauk KazSSR no.4:829-832
F. 195. (M.R.A. 18:2)

Institut Khimicheskikh nauk Akad. Nauk SSSR (for Sov. Acad. Sci.)

DRUZ', V.A.; UTEGULOV, N.I.; SOKOL'SKIY, D.V., akademik

Role of hydrogen in the dehydrogenation of cyclohexane on
platinum. Dokl. AN SSSR 162 no.2:373-375 My '65. (MIRA 18:5)

1. Kazakhskiy gosudarstvennyy univeristet im. S.M.Kirova.
2. AN KazSSR (for Sokol'skiy).

FASMAN, A.B.; KABIYEV, T.; SOKOL'SKIY, D.V., akademik, YAGUDAEV, T.A.

Promoting the skeletal nickel catalyst by oxygen-containing anions
of transition metals, Dokl. AN SSSR 162 no. 3:600-602 My '65.
(MIRA 18:5)

!, Kazanskiy gosudarstvennyy universitet im. S.M.Kirova, 2. AN
KazSSR (for Sokol'skiy).

ZAKARINA, N.A., ZAKHARAEVA, G.I., SOKOLOVSKIY, V.V., ~~UDC 547.555.1~~

Selective hydrogenation of dimethylacetylenylcarbinol on Pt black
in the presence of cerium ions. Dokl. AN SSSR 162 no.4 774-776
(MIR 18:5)
Je '65.

1. Institut Khimicheskikh nauk AN KazSSR. 2. AN KazSSR (for
Sokol'skiy).

BELOSLYUDOVA, T.M.; SOKOL'SKIY, D.V., akademik

Behavior of styrene and phenylacetylene on a platinum catalyst.
Dokl. AN SSSR 162 no.6:1297-1299 Je '65. (MIRA 18:7)

1. Kazakhskiy gosudarstvennyy universitet im. S.M.Kirova. 2. AN
Kazakhskoy SSR (for Sokol'skiy).

L 58349-65 EWT(m)/EPF(c)/EWP(j)/EWA(c) -Pc-4/Pr-4 RM
ACCESSION NR: AP5018081

UR/0020/65/163/001/0103/0105

25
24
B

AUTHOR: Dorfman, Ya. A.; Sokol'skiy, D. V. (Academician AN KazSSR)

TITLE: The reaction mechanism of components with the catalyst in the Kucherov reaction

SOURCE: AN SSSR. Doklady, v. 163, no. 1, 1965, 103-105

TOPIC TAGS: acetaldehyde, hydration, acetylene hydration, catalytic hydration, reaction mechanism

ABSTRACT: In the course of hydration of acetylene to acetaldehyde the mercury catalyst is gradually deactivated, and therefore must be constantly regenerated. This work was devoted to studying the composition of the catalytic solution under reaction conditions, i.e., essentially the reaction of acetylene and acetaldehyde with mercury in various oxidation states (Hg^0 , Hg_2^{++} , Hg^{4+}). The above system was studied at 92°C in 2.5 M H_2SO_4 . It was found that mercuric ions are not reduced in the acidic medium, but instead form a complex with acetaldehyde. The complex is rapidly destroyed when the concentration of acetaldehyde is lowered. This contradicts the widely held view that the deactivation of the catalyst is caused by the reduction of mercury ions by acetaldehyde. Orig. art. has: 1 table. [VS]

Card 1/2

L 58348-65
ACCESSION NR: AP5018081

ASSOCIATION: Institut khimicheskikh nauk Akademii nauk KazSSR (Institute of Chemical Sciences, Academy of Sciences, KazSSR)

SUBMITTED: 14Jan65

ENCL: 00

SUB CODE: OC, GC

NO REF SOV: 009

OTHER: 003

ATD PRESS: 4042

KP
Card 2/2

SOKOL'SKAYA, A.M.; RYABININA, S.A.; SOKOL'SKIY, D.V.

Hydrogenation of dimethylacetylene in the presence of
alkali metal cations. Elektrokhimiia 1 no.9:1098-1103 S '65.
(MIRA 18:10)
1. Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova.

SOKOL'SKIY, D.V.; KOZINA, S.M.

Hydrogenation of cottonseed oil on a stationary catalyst.
Izv. AN Kazakh. SSR. Ser. khim. nauk 15 no.1:42-51 Ja-Mr '65.
(MIRA 18:12)

1. Submitted July 11, 1964.

VOLKOV, L.P.; SOKOLOV, D.V.

Hydrogenation of nitriles with conjugated bonds in mixed solvents.
Izv. Akad. Nauk SSSR Ser. Khim. Nauk 1966 no.1:52-57 Jan-Feb '66.
(NBA 18:12)

1. Submitted Nov. 11, 1964.

PUSTYL'NIKOV, L.M.; LUK'YANOV, A.T.; FASMAN, A.B.; IKHSANOV, Zh.;
SOKOL'SKIY, D.V.

Measurement of the gradient of hydrogen concentration in a
solution in the homogeneous catalytic reduction of $\text{Cr}_2\text{O}_7^{2-}$ anion
in the presence of Cu(II). Zhur.fiz.khim. 39 no.10:2530-2535 0
'65. (MIRA 18:12)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova.
Submitted September 2, 1964.